

**HEAT EXCHANGING APPARATUS AND METHOD OF MANUFACTURE****ABSTRACT OF THE DISCLOSURE**

Heat exchange surfaces are formed on a core object, by placing at least a part of a thermally conductive core object within a mold cavity that defines one or more heat exchange surfaces. A heated metal slurry such as, e.g., a magnesium alloy heated to a thixotropic state is injected under a predetermined pressure into the mold cavity. The heated metal slurry is then cooled to form a substantially continuous void free interface between the core object and the slurry when hardened.